**Understanding the need for swift bricks on new build housing estates**

**Summary**

* In the UK there have been reductions in house sparrow, starling and swift populations of over 60% in the last 20 to 40 years
* The RSPB and BTO have investigated the reasons for the decreases and only in the case of the swift (with some caveats) has the main cause been loss of nesting sites.
* Providing nest boxes on buildings for house sparrows and starlings will have little or no effect on their numbers (provision of swift bricks/boxes will nevertheless support these species)
* The UK swift relies on using buildings for their nesting sites, this particular key vulnerability means that recovery of numbers can only occur if more nest bricks/ boxes are provided on new and old buildings
* The mandating or strong recommendation to fit swift nesting bricks on new build housing estates will support the recovery of swifts.

**Discussion**

The reduction in bird populations in the UK is an indicator of the huge reduction in biodiversity throughout the world. In particular there have been large reductions in sparrows and starlings over the last forty years making them red listed according to the British Trust for Ornithology (BTO) criteria. Swifts are currently amber listed even though, according to the BTO, their numbers have been reduced by 60% in the last twenty years. This is mainly because the reduction in swift numbers has been very sudden. The next BTO Birds of Conservation Concern (BOCC) revision 5 document will be issued this year (2021) or in 2022 when the swifts are likely to be red listed.

The plight of sparrows and starlings has been recognised by planning authorities for some time, where for some new house builds, sparrow terraces and nest boxes have been recommended. Many planning authorities see recommendations of integral swift bricks/ boxes on par with those for sparrows and starlings. This parity, unfortunately, misunderstands the likely reasons for the reduction of each of these species as indicated by the Royal Society for the Protection of Birds (RSPB) and the BTO.

Extracting the findings from the RSPB (Ref 1) and the BTO (Ref 2) their best judgements of the main causes of species number reduction are:

a) House Sparrows:

RSPB (Ref 1): The reference says that recent decline is mysterious. However, it goes on to site lack of food in farmland due to autumn-sewn cereals and reduction in spilt grain and possibly, in cities, air pollution affecting the number of invertebrates. There is no mention of nest site concerns.

BTO (Ref 2): Since 1975 the sparrow population has reduced by about 70% although since around 1995 the population has remained steady. The main cause of sparrow reduction on farmland is agricultural intensification. Different processes are at play in towns where breeding performance could be the most important driver of decline. The conservation actions they suggest are:

Farmland birds – increasing food resources

Urban birds – the reasons for reductions are less clear, there are probably a variety of reasons, they suggest:

* supplementing food in winter
* increasing the density of invertibrates
* maintaining and improving habitats may help eg planting of native shrubs, retaining natural gardens and green spaces, ensuring suitable nesting locations eg fitting nest boxes, improving garden feeder hygiene and reducing air polution.

I conclude, with respect to nest boxes, that their provision is only a small part of what is required to support and improve the sparrow population.

b) Starlings:

RSPB: Reasons for reduction in numbers are not clear. They say that loss of permanent pasture as a feeding habitat and changes in farming practices are thought to have contributed to the decline. Starlings nest in holes in trees, rocks and buildings, there is no mention of shortage of nest sites being an issue.

BTO: There has been a big starling reduction in woodlands. They indicate there was a major reduction of 88% between 1980 and 2010, since then the population has remained stable. There is good evidence that reductions in the first year bird overwintering survival rates is the main cause of this reduction. This is thought to be due to the management of pastoral farmland (agricultural intensification) reducing foraging food sources, insecticides are also suspected. Very little information is known about suburban habitats. They judge the most important conservation action is to improve winter foraging habitats on farmlands. There is no identified concerns with respect to nesting availability.

c) Swifts:

RSPB: Under ‘conservation’ the only issue that is raised is that there are problems for the species in that modern buildings lack suitable nest-sites and some older buildings have cavities blocked. They note it is possible to make swift nest boxes which will help the species. This highlights the need for swift bricks.

BTO: It is reported that there has been a major reduction (60%) of swift numbers since 1994 when swift numbers were first monitored. This reduction could have started well before 1994. They point out that monitoring is complicated by the difficulty of finding occupied nests, the weather dependent distances the swifts forage for airborne food and the substantial influx of non-breeding birds. They are unclear as to the main reasons for the reduction but note modern building design and refurbishment of old buildings may have contributed to decline by depriving swifts of nest sites. They note that the complication of monitoring and also identification of nest sites make it difficult to confirm the main drivers of change.

**Conclusions**

It can be seen that there are multiple causes for the reduction in numbers of sparrows and starlings and these are NOT significantly associated with nest site reduction. Furthermore, the drive towards increased biodiversity in the UK will naturally increase nesting sites for these species since normally they nest in natural habitats such as trees, holes in rocks, bushes, etc. However, in the case of swifts the RSPB (Ref 1) and the BTO (Ref 2) believe an important cause for their catastrophic reduction in numbers is their loss of nest sites on buildings due to refurbishment (loss of spaces under old roof tiles and the filling of cracks and crannies) and demolition/ replacement of older buildings.

These conclusions mean that providing artificial nesting sites on modern buildings will probably have little or no effect on sparrow and starling populations but may be KEY to the survival of swifts in the UK.

This is why, if we want to preserve and increase the numbers of this iconic species, the public must appeal to the planning authorities and house building companies to prioritise the fitting of swift bricks/ boxes over fitting of, say, sparrow boxes and terraces (if there are concerns about this conclusion see Note 1 which suggests swift bricks should be seen as ‘universal’ bricks). Reliance on artificial sites (buildings) is the key vulnerability of the swift population.

This positive action by the planning authorities and house building companies should of course be mirrored by campaigns to persuade members of the public to fit swift boxes and bricks to their own homes. The RSPB and The Wildlife Trusts and many other organisations have ongoing campaigns to achieve this end.

Time is running out for UK wildlife. David Attenborough has said that ‘The UK is one of the most nature depleted countries on the planet and the situation is getting worse’. Craig Bennett the Wildlife Trusts chief executive also said that ‘just protecting the nature we have is not enough: we need to put nature into recovery and do so at scale and with urgency’. The actions of planners and builders in supporting and fitting swift bricks will prevent further depletion and help put nature into recovery.

**References:**

1. RSPB Handbook of British Birds by Peter Holden and Tim Cleeves, Fourth Edition

2. BTO Website; Section ‘Bird Trends’ ([www.bto.org/birdtrends](http://www.bto.org/birdtrends)) giving species info (in particular sparrows, starlings and swifts): Woodward I D et al (2020) BirdTrends 2020: trends in numbers, breeding success and survival for UK breeding birds. BTO Research Report 732. BTO, Thetford

3. Duchy Report on the Big Bird Box Survey 2020 by Dr Thais Martins

*Brief Summary of the Report:*

*This report looks at the positive impact of fitting swift bricks on houses in new estates. The Duchy was advised on this project by the RSPB. Swift bricks on four developments (five sites) were monitored (three in Cornwall one in Dorset), two years of monitoring have been undertaken, this report covers 2020. The survey is expected to last for ten years. Selected outcomes indicate:*

*• The occupation of the swift nest boxes on the five sites ranged from 37% to 96%. The highest percentages are possibly due to the longer ages of the particular developments (three to five years).*

*• The most abundant species using the swift bricks was the house sparrow followed by house martins and starlings.*

*• The nest site aspect is not relevant probably due to a consistent microclimate within the walls of the houses.*

*• The total number of swift bricks monitored on the five sites were 628.*

4. Swift Bricks the Universal Nest Brick by Camilla Barlow, Mike Priaulx and SLN Swifts and Planning Group, December 2020 (see *Action for Swifts* website)

5. Cost of Swift Bricks (see *Action for Swifts* website)

**NOTES**

Note 1: Refs 3 and 4 indicate that swift bricks should be seen as ‘universal bricks’ which have a high degree of occupancy almost immediately. They are preferred by sparrows, starlings, great tits and other species over other artificial nest sites including sparrow terraces.

Note 2: The cost of a popular swift brick is less than £100 perhaps even £50 (Ref 5).

Note 3: European swifts (the species which nest in the UK) originally nested in primeval forests using woodpecker tree burrows, with a few nesting on cliff faces. As the primeval forests were cleared (there is very little primeval forest left in the UK) the swifts took up residence in buildings within medieval towns and villages throughout Europe (underneath roof tiles, in gaps between window sills and most typically under eaves and within gables). Since that time swift survival has depended on the existence of these buildings or their replacements.

Note 4: Sometimes the terms ‘where appropriate’ or ‘in appropriate locations’ are applied to the fitting of swift bricks. Since swifts mainly nest in buildings then any building location is appropriate. It is true that swifts may be more attracted to areas where there are already swifts but there must have been a ‘first’ nest in these areas. The use of electronic swift calls at the new location can greatly improve the chance of residency. Also as mentioned in Note 1 swift bricks are also preferred by other birds including the red listed sparrow so slow take up by swifts is not a big issue.

Note 5: Some amazing swift facts (RSPB)

• Our swifts (European swifts) are the fastest of all birds in level flight, the European swift holds the record for the fastest proven speed of 69.3 mph

• Our swifts stay in the UK from around the start of May to the end of July, they can only have one brood in this time. In August they fly 6000 miles back to southern Africa where they stay before they return to the UK around the end of April, a round trip of 12000 miles

• Whilst travelling to and from southern Africa and staying in southern Africa (around eight to nine

months) they almost never land, feeding and sleeping on the wing.

• In addition to mating at their nest sites, swifts can also mate on the wing – no other bird is known to mate on the wing.

• From the instant young birds leave their nest site they do not land again until they return to the UK (around 9 months) and start looking for a nest site of their own. They ensure their strength before leaving the nest site by doing ‘press ups’ in the nest.

• Swifts can fly up to a height of 10,000 feet and at this altitude they can shutdown half their brain reducing the need for oxygen

Note 6: Mental health and the environment

There is much evidence that enhancing bird species in urban settings has a positive effect. For example a report came out in December 2020 from the German Centre for Integrative Biodiversity Research 'Biological diversity evokes happiness' – the summary says ‘A high biodiversity in our vicinity is as important for life satisfaction as our income, scientists found. All across Europe (26 countries in the survey) the individual enjoyment of life correlates with the number of surrounding bird species. An additional 10% of bird species therefore increases the Europeans' life satisfaction as much as a comparable increase in income. Nature conservation thus constitutes an investment in human well-being.’ The mandating or strong recommendation to fit swift nesting bricks on new build housing estates would, therefore, significantly aid human well-being.

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